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Semi-empirical simulation of mercury surface formation

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Abstract

A common method of mathematical simulation of the mercury drop formation, based on the disk electrodes has been proposed. The basic parameters of making drop electrodes, such as drop radius, mass and volume, and absolute surface area have been calculated using depositing time data immediately. The data obtained with both potentiostatic and galvanostatic modes may be used. A good compliance of practical parameters (measured by microscopic observations) with those predicted by theory, on the example of mercury drop ultramicroelectrodes formation have been demonstrated.